

Новое
поколение
массивов Dell
PowerVault MD3

Что нового в MD3?

- Доступные по цене, самые современные интерфейсы подключения к серверам **12Gb SAS, 10Gb iSCSI, и 16Gb Fibre Channel**
- Удвоенный объем кэш памяти (было 4GB на контроллер, стало **8GB**)
- Лицензии **Premium Features** сокращены до двух бандлов:
 - Data protection option (снэпшоты, снэпклоны, репликация)
 - High performance and optimization option (HPT tier, SSD cache, additional drives)
- Удаленная асинхронная репликация теперь поддерживает режим **mirroring of thin provisioned pools** (репликация тонких томов)
- Кол-во динамических пулов удвоилось (**Dynamic Disk Pool**), now supports up to 20 DDPs
- Динамические пулы теперь поддерживают до 120 SSD дисков (**Dynamic Disk Pools can support up to 120 SSD drives with up to 1024 TB of storage**)
- Появилась поддержка нескольких протоколов - **multi-protocol connectivity with the host server with Fibre Channel и SAS / iSCSI и SAS**

Next-Gen MD3 product: new models



Next-gen MD3 4U / 60 drives	Next-gen MD3 2U / 24 drives	Next-gen MD3 2U / 12 drives
MD3460 – 12Gb SAS	MD3420 – 12Gb SAS	MD3400 – 12Gb SAS
MD3860i – 10Gb iSCSI	MD3820i – 10Gb iSCSI	MD3800i – 10Gb iSCSI
MD3860f – 16Gb FC	MD3820f – 16Gb FC	MD3800f – 16Gb FC
MD3060e – 6GB SAS Expansion/Direct Attach	MD1220 – 6Gb SAS Expansion	MD1200 – 6Gb SAS Expansion

Affordable

Proven price for performance on all models and a scale-as-you-grow infrastructure

Versatile

Choose from a variety of options that meet your business requirements

Reliable

Software features and data protection for dependable storage to handle any consolidation need

Maximize performance and capacity

- Option for 1 or 10Gb iSCSI; 16Gb Fiber Channel; 12Gb SAS
- Drives: SAS / NL-SAS / SSD / SED
- 4GB or 8GB cache option for faster reads
- **Multi-protocol capable (FC + SAS or iSCSI + SAS)**

- Robust and easy management software
- Redundant, hot-swappable drive, power supplies and controllers
- Same look and feel with MDSM

Versatility

Manageability

Scalability

Data Protection

Performance

- Remote replication that now includes asynchronous mirroring of thin provisioned pools
- Data protection with Dynamic Disk Pooling
- Optional Premium Feature bundle of Snapshot, Virtual Disk Copy and Remote Replication

- Up to 60 HDDs in a single 4U dense array
- Up to 192 drives in 2U models
- Over half a petabyte raw capacity in just 4U¹

- Double the host interface with 16Gb Fibre Channel and 12Gb SAS²
- **Up to 16GB controller cache³**
- High Performance tiering to meet the demand for improved performance
- SSD Cache - up to 5TB of SSD-based high-performance read cache

¹Using 180 4TB HDDs, on dense array and expansions

²Based on previous MD3 generations connectivity options

³8GB cache per controller

Versatile Options

Controller connectivity

SAS

- Easiest to install of the major storage technologies
- Requires HBA, available in either JBOD or RBOD
- Now supports 12Gb
- Normally requires a server to deploy
- **Great for Microsoft Storage Spaces or VMware vSAN**

FC

- Most popular SAN protocol
- Requires isolated FC network, switches & mgmt. tools
- Lossless protocol, frames sent and received in order
- Typically requires a FC switch to deploy
- **Multi protocol controller – FC & SAS**
- **Top Speed today: 16Gb**

iSCSI

- Cost-effective, Ethernet-based shared storage
- Flexible, works with TCP Ethernet protocols
- Robust, can reassemble packets out of order or request retransmits
- Typically requires an Ethernet switch to deploy
- **Multi-protocol controller – iSCSI & SAS**
- Top Speed today: 10Gb



Dell PowerVault MD3 - текущая линейка

MD3200
MD3220
MD3260

6Gb SAS

- Great for virtual environment using simple shared DAS
- Single room data centers / Small server consolidation
- High bandwidth

MD3200i
MD3220i
MD3260i

1Gb iSCSI

- Low cost IP departmental SAN
- Tier 2 server consolidation
- Centralized backup

MD3600i
MD3620i
MD3660i

10Gb iSCSI

- High performance IP SAN
- Server virtualization
- New data centers

MD3600f
MD3620f
MD3660f

8Gb FC

- High performance Fibre Channel SAN
- Existing FC implementations
- New server deployments



Host Port Connectivity and Drive Support

12Gb SAS



16Gb Fibre Channel



10Gb iSCSI



1Gb iSCSI



Drive Technology	Capacity
SSD	200/400/800/ 1600 MLC 2.5 inch drives
15K SAS	146/300 2.5 inch drives 300/600 3.5 inch drives
10K SAS	300/600/900/ 1200 2.5 inch drives
NL-SAS	500/1000/2000/ 3000/4000 3.5 inch drives

Shown are dual controller models
MD3 Dense Arrays and enclosures do not support 3.5" 10 or 15K HDDs

Dell Storage

